KCC 4781 (K-C 17,028)
PATENT

REMARKS

No claims have been amended herein. After entry of this Letter to the Patent and Trademark Office After Final Rejection, claims 1, 6-10, 12-23, and 26-28 will be pending. Applicants note that the Office has found claims 26-28 to be in condition for allowance.

1. **Finality of Office Action**

Applicants note that the Office has made the outstanding Office action final. The Office contends that such action is proper pursuant to M.P.E.P. §706.07(a) as applicants' previous amendment necessitated the new grounds of rejection presented in the final Office action. Applicants respectfully disagree and request reconsideration of the finality of the Office action. Applicants contend that the Office action has been made final prematurely and should be withdrawn pursuant to M.P.E.P. §706.07 (d).

Applicants note that the amendments that were made to claims 1, 6-10, 12, and 15 regarded elements previously contained in pending dependent claims; that is, subject matter that was pending and considered by the Office in the examination of this case. Applicants did not add additional subject matter from the specification not previously claimed in the claims and not previously considered by the Office in its prior rejections. All of the amendments made were taken from dependent claims pending in this case and considered and rejected by the office. For example, the subject matter which was incorporated into amended claim 1 can be found in claims 4, 10, and 11 as originally filed.

As noted in M.P.E.P. §706.07(a) and cited by the Office, a second or any subsequent action on the merits shall be final, except where the examiner introduces a new ground of rejection that is neither necessitated by applicant's amendment of the claims nor based on information submitted in an information disclosure statement filed. In this case, the Office has cited a new reference (Frisch, U.S. No. 2,644,750) as a basis for

rejecting pending claims. Applicants were not given the opportunity to comment on this reference prior to the Office making the final rejection. As noted above, applicants' amendment to the claims in Amendment A did not, and could not, have necessitated the new ground of rejection as all of the amended material was were previously found in dependent claims pending in this case and previously rejected by the Office based on different art. As such, the finality of the pending Office action is premature, and should be withdrawn by the Office.

2. **Rejection of Claims 1, 6-7, 10, 12-17, and 20-23 Under 35 U.S.C. 103(a)**

Reconsideration is requested of the rejection of claims 1, 6-7, 12-17, and 20-23 under 35 U.S.C. 103(a) as being unpatentable over Frisch et al. (U.S. No. 2,644,750) in view of Shannon et al. (6,488,812).

Independent claim 1 is directed to a process for making a cellulosic paper product and requires forming an aqueous suspension of papermaking fibers; introducing boric acid into the aqueous suspension; depositing the aqueous suspension onto a sheet-forming fabric to form a wet web; and through-drying[1] the wet web by passing heated air through the wet web.

Frisch et al. disclose a paper making process utilizing modified locust bean gum. Frisch et al. discovered that conventional paper making operations could be improved by adding to the aqueous suspension of fibers an aqueous solution of a

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[1]All of the rejected claims now require that the web be through-dried by passing heated air through the web. As noted in applicants' prior submission and in the specification, the problem of malodors released upon re-wetting of paper hand towels and other cellulosic paper products is particularly present in paper products made from cellulosic base sheets that have been through-air dried. This phenomenon is perhaps due to the highly oxidative environment and unique mass transfer phenomena provided by the heated air stream passing through the wet-laid web of papermaking fibers. None of the art of record recognize these issues.

combination of locust bean gum, a sodium borate, and an acid material. One of numerous examples of a suitable acid material disclosed is boric acid. Sheets into which this combination of components was added showed improved properties. Although Frisch et al. claim that lower drying temperatures and increased speeds are possible utilizing the process of the invention, they do not disclose any drying methods or parameters for drying their treated paper products.

Significantly, Frisch et al. do not disclose through-drying of a wet web comprising boric acid by passing heated air through the wet web. This is a requirement of claim 1, and a significant aspect of applicants' invention. Recognizing the shortcomings of the Frisch et al. reference alone, the Office cites Shannon et al. for combination with Frisch et al., and claims that such a combination renders claim 1 unpatentable for obviousness. Applicants respectfully disagree, and submit that such a combination of references is improper and cannot make claim 1 unpatentable.

Shannon et al. disclose a method of making a paper sheet which includes forming an aqueous suspension of papermaking fibers; depositing the suspension onto a sheet-forming fabric to form a web; and dewatering and drying the web to form a paper sheet. In accordance with the principal teaching of the disclosed method, a synthetic polymer having a portion of its structure derived from the polymerization of acrylamide and containing an aliphatic hydrocarbon moiety is added to the aqueous suspension of papermaking fibers. The synthetic polymer additive is said to reduce lint and slough in the paper sheet. Shannon et al. disclose various ways of drying the web, including using a canvas under tension to hold the partially dewatered web or sheet against a steam heated, convex surface metal dryer maintained at 213°F (101°C) (See col. 11, lines 6-55) as well as by through-air drying using supply air heated to about 390°F (199°C) (See col. 14, lines 32-64).

In an attempt to combine these teachings and thereby render claim 1 unpatentable, the Office states that it would have been obvious to one skilled in the art at the time the invention was made to combine these teachings because such a combination would provide quality drying of the formed web in the design of Frisch et al.[2] As noted above, such a combination is improper and does not render claim 1 unpatentable.

M.P.E.P. §2141 requires that the Office, in order to show *prima facie* obviousness, must show some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to combine the reference teachings. In making this showing, knowledge of applicants' disclosure must be put aside; improper hindsight analysis must be avoided. The Office's contention that motivation is present because a combination of the references would provide quality drying is an improper standard; the proper question or standard is whether one skilled in the art, at the time of applicants' invention, would, looking at the primary reference Frisch et al., have been motivated to look specifically at the secondary reference Shannon et al. for a drying procedure; that is, would the skilled artisan have been motivated to choose the through-drying procedure of Shannon et al. Clearly, there is no motivation for such a combination. Why would one skilled in the art pick Shannon et al. over any other of numerous references that disclose any number of drying procedures? There is no specific reason or motivation to look to Shannon et al. without knowledge of applicants' disclosure as the art does not recognize the odor problem.

Stated another way, neither of the cited references has anything to do with odor control, nor to they recognize odor control as a problem. Nothing in the primary reference teaches

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[2]It is worth noting that if this were the proper standard, any and all references disclosing a drying procedure for a paper product could be properly combined with the primary reference to render claim 1 unpatentable. This is clearly not the case.

or suggests that through-air drying be employed, much less that treatment with boric acid be selected from the list of potential acids disclosed to combat odor problems upon re-wetting of the through-air dried product. Although Shannon et al. do disclose through-air drying of a web during a papermaking process as a potential drying method, the reference also discloses drying a partially dewatered sheet by holding it against a steam heated metal surface with no teaching whatsoever that would motivate one of ordinary skill in the art to choose one method over the other (not even considering the multitude of other drying processes throughout the art). More importantly, like the primary reference, Shannon et al. fail to recognize odor problems attendant with re-wetting through-air dried cellulosic paper products and would in no way teach or suggest that the application of boric acid as in Frisch et al. would somehow have possible application in combating such odor problems by introducing boric acid into the aqueous suspension of papermaking fibers. Without these recognitions, the combination of the cited references is not proper and claim 1 is patentable.

Claims 6-7, 10, and 12-14 depend either directly or indirectly from claim 1 and are patentable for the same reasons as claim 1, as well as for the additional elements they require.

Independent claim 15 similar to claim 1 and is directed to a preferred embodiment of the present invention. Claim 15 includes the further requirement of introducing boric acid into the aqueous suspension prior to depositing the aqueous suspension onto the sheet-forming fabric. Claim 15 is patentable for the same reasons as claim 1, as well as for the additional elements it requires.

Claims 16-17 and 20-23 depend either directly or indirectly from claim 15 and are patentable for the same reasons as claim 15, as well as for the additional elements they require.

In view of the above, applicants respectfully submit that the invention defined in all pending claims are patentable over Frisch et al. and Shannon et al.

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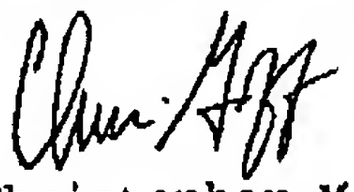
Favorable reconsideration and allowance of all pending claims are respectfully solicited.

The Commissioner is requested to charge any fee deficiency in connection with this amendment to Deposit Account 19-1345.

Respectfully submitted,



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